

A NEW SPECIES OF THE GENUS *ALLANTUS* PANZER  
(HYMENOPTERA: TENTHREDINIDAE) FEEDING ON  
*RHODODENDRON RETICULATUM* D. DON (ERICACEAE) IN JAPAN

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*Abstract.*—*Allantus rhododendri*, n. sp., from Japan is described and illustrated. It was reared from larvae feeding on *Rhododendron reticulatum* D. Don (Ericaceae). A key is provided for the eight Japanese species of *Allantus*.

*Key Words:* Tenthredinidae, Allantinae, *Allantus*, new species, food plant, *Rhododendron reticulatum*

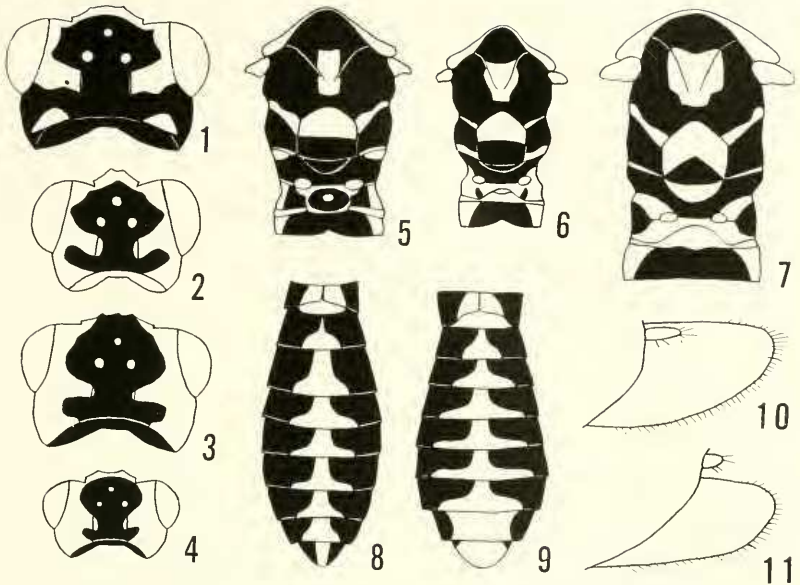
*Allantus* Panzer (Allantinae), is a Holarctic genus with about 35 species. Seven species are listed for Japan by Abe and Togashi (1989): *A. albicinctus* (Matsumura 1912), *A. basalis* (Klug 1814), *A. calliblepharus* (Konow 1900), *A. luctifer* (Smith 1874), *A. meridionalis* Takeuchi 1933, *A. nakabusensis* Takeuchi 1929, and *A. nigrocaeruleus* (Smith 1874). However, the genus has not been revised, and there is no key to Japanese species. The most common larval food plants are the Rosaceae, but Polygonaceae, Fagaceae, and Salicaceae also have been recorded. Okutani (1967) recorded the host plants for *A. albicinctus*, *A. meridionalis*, and *A. nakabusensis* as Rosaceae, and *A. luctifer* and *A. nigrocaeruleus* as Polygonaceae.

I had the opportunity to examine specimens of an *Allantus* which were reared from larvae feeding on the leaves of *Rhododendron reticulatum* D. Don (Ericaceae) from Kyoto Prefecture, through the courtesy of S. Sugiura. These specimens differed from the recorded Japanese species and the species recorded in the European and North American literature (e.g., Benson 1952, Smith 1979, Taeger 1986). They most resemble *A. nakabusensis* from Japan and

*A. viemensis* (Schrank) from Europe and North America. Coloration and characters of the lancet, however, separate this species. Thus, I concluded that the specimens from *Rhododendron* represent a new species, and I describe it here and give a key to the Japanese species.

KEY TO FEMALES OF JAPANESE SPECIES  
OF *Allantus*

1. Nervulus interstitial with basalis in forewing (Fig. 22) ..... 2  
– Nervulus not interstitial with basalis in forewing (Fig. 23) ..... 4
2. Wings infusate or forewing with an infusate spot below stigma ..... 3  
– Wings hyaline (lateroposterior corner of pronotum, lateral sides of coxae, lateroposterior corner of 5th and 6th abdominal tergites, central portion of 8th and 9th tergites and 4th to 7th sternites milky white) .....  
..... *nigrocaeruleus* (Smith)
3. Wings infusate; labrum black; lateroposterior corner of 3rd to 5th abdominal tergites milky white ..... *luctifer* (Smith)  
– Wings hyaline with an infusate spot below stigma (Fig. 26); labrum white; 1st abdominal tergite, posterior half of 5th abdominal tergite, and apical two abdominal tergites white . . . . .  
..... *calliblepharus* (Konow)
4. Head mostly yellow with frontal area, postocellar area, and rather small macula on postocular area black; mesonotum with small yellow



Figs. 1-11. 1-4, Head, dorsal view. 1, *Allantus rhododendri*, female. 2, *A. rhododendri*, male. 3, *A. nakabusensis*, female. 4, *A. nakabusensis*, female. 5-7, Thorax. 5, *A. rhododendri*, female. 6, *A. rhododendri*, male. 7, *A. nakabusensis*, female. 8-9, Abdomen, dorsal view. 8, *A. rhododendri*, female. 9, *A. nakabusensis*, female. 10-11, Sawsheath, lateral view. 10, *A. rhododendri*. 11, *A. nakabusensis*.

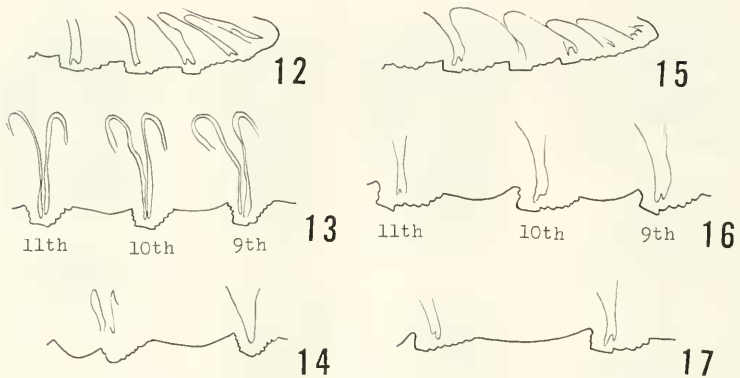
- macula; abdominal tergites with inverted T-shaped white maculae (Figs. 8-9) . . . . . 5
- Head and mesonotum black; abdomen mostly black with white band or macula . . . . . 6
- 5. Mesoscutellum mostly yellow (Fig. 7); mesoscutellar appendage yellow (Fig. 7); lateral sides of 1st to 8th tergites yellow; 8th tergite with rectangular white macula (Fig. 9); 9th tergite mostly white (Fig. 9) . . . *nakabusensis* Takeuchi
- Anterior half of mesoscutellum yellow and posterior half black (Fig. 5); mesoscutellar appendage black (Fig. 5); lateral sides of 1st to 8th tergites black; 8th tergite with inverted T-shaped macula (Fig. 8); last tergite with median longitudinal yellow macula . . . . . *rhododendri*, n. sp.
- 6. Head in dorsal view dilated behind eyes; head black with small white spot on inner orbit; labrum brown; outer side of foretibia white; tegula white . . . . . *basalis* (Klug)
- Head in dorsal view parallel behind eyes; head black, labrum brown; inner surface of foretibia light brown; tegula black . . . . . 7

- 7. Hind tibia entirely black; sawsheath more rounded in lateral view (Fig. 24) . . . . . *albicinctus* (Matsumura)
- Basal portion of hind tibia white; sawsheath truncate at apex in lateral view (Fig. 25) . . . . . *meridionalis* Takeuchi

***Allantus rhododendri* Togashi,  
new species**

(Figs. 1-2, 5-6, 8, 10, 12-14, 18, 20)

Female.—Length, 7 mm. Head black with following yellow: labrum, clypeus, basal half of mandible, malar space, lower portion of gena, anterior margin of supra-clypeal area, inner orbits, anterior third of postocular area, and triangular-like macula on posterior portion of postocular area (Fig. 1). Thorax black with following yellow: la-



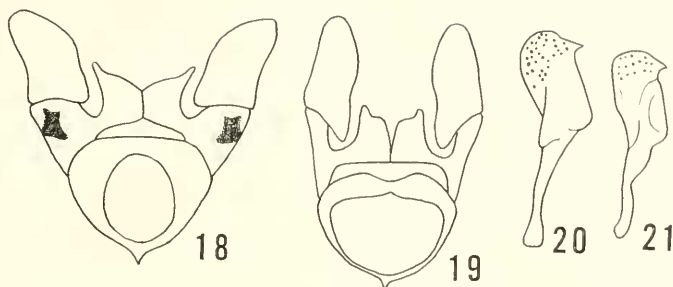
Figs. 12-17. Female lancet. 12-14, *Allantus rhododendri*. 12, Apical portion. 13, 9th to 11th serrulae. 14, basal 2 serrulae. 15-17, *A. nakabusensis*. 15, Apical portion. 16, 9th to 11th serrulae. 17, basal 2 serrulae.

teroposterior portion of pronotum, tegula, posterior portion of median lobe of mesoscutum, subquadrate macula on central portion and posterior side of lateral lobe of mesoscutum, anterior half of mesoscutellum, cenchrus, elliptic macula on metascutellum, lateroanterior corner of postnotum of mesothorax, lateral side of metascutum and postnotum of mesothorax (Fig. 5), and perapteron. Abdominal tergites black with following yellow: lateral side of 1st to 8th tergites, central portion of 1st and last tergites, inverted T-shaped maculae on 2nd to 8th tergites (Fig. 8), and cercus. Abdominal sternites yellow and basal plates mostly yellow. Antenna black with lateroventral side of basal two segments yellow. Wings hyaline; basal portion of stigma and apical portion of subcosta of forewing yellow, other veins dark brown to black. Legs yellow with following dark brown to black: fore-coxa except for yellow inner side, apical half of outer side of fore- and midfemora, apical half of outer and inner sides of hind femur, apical  $\frac{2}{3}$  of tibiae, fore- and midtarsi, apical half of hind basitarsus, and apical hind tarsal segment.

Head from above transverse (Fig. 1); OOL:POL = 1.6:1.0; postocellar area pentagonal; circumocellar furrow distinct; in-

terocellar furrow distinct and deep; postocellar and lateral furrows distinct; frontal area nearly flattened; median fovea deep and circular in outline; lateral fovea distinct and circular in outline, connected with antennal furrow; antenno-ocular distance slightly shorter than distance between antennal sockets; supra-clypeal area slightly raised; clypeus moderately convex, anterior margin rather deeply emarginate, lateral lobe triangular; labrum nearly flattened, obtusely angled apically, malar space shorter than diameter of front ocellus; occipital carina defined. Antenna slightly longer than costa of forewing; relative lengths of segments about 1.9:1.0:3.8:3.2:2.8:1.8:1.4:1.4:1.4; pedicel length:width about 1.0:0.6; 3rd segment  $1.2 \times$  length of 4th segment. Thorax with mesoscutellum nearly flattened; cenchrus small, distance between cenchri longer than width of one. Hind wing with petiole of anal cell shorter than nervulus; without middle cell. Legs with hind basitarsus nearly as long as following four segments combined. Sawsheath as in Fig. 10; lancet as in Figs. 12-14; serrulae of lancet trapezoidal (Fig. 13). Punctuation: Head, thorax, and abdominal tergites covered with fine setigerous punctures, shining.

Male.—Length, 6 mm. Head yellow with



Figs. 18–21. Male genitalia. 18, *Allantus rhododendri*, genital capsule. 19, *A. nakabusensis*, genital capsule. 20, *A. rhododendri*, penis valve. 21, *A. nakabusensis*, penis valve.

following black: posterior half of frontal area, ocellar area, postocellar area, and rectangular spot on postocellar area (Fig. 2); apical half of mandible black. Antenna with scape and basal 1/3 and ventral surface of pedicel yellow; dorsal surface of pedicel and 3rd to last segments dark brown to black; ventral surface of 3rd to last segments yellowish brown. Thorax black with following yellow: pronotum, tegula, posterior half of median lobe and V-shaped macula on central portion of lateral lobe of mesoscutum, posterior side of lateral lobe of mesoscutum, anterior half of mesoscutellum, mesoscutellar appendage, metascutum, metascutellum, lateral side of postnotum of metathorax. Abdominal tergites black with following yellow: lateral sides of all tergites, semicircular macula on 1st tergite, subrectangular macula on 2nd tergite, most of 3rd and 4th tergites, inverted T-shaped macula on 5th to last tergites; all sternites yellow.

Antennal, thoracic, and punctuation structures similar to those of female except for sexual segments. Genitalia as in Fig. 18; penis valve as in Fig. 20.

Distribution.—Japan (Honshu).

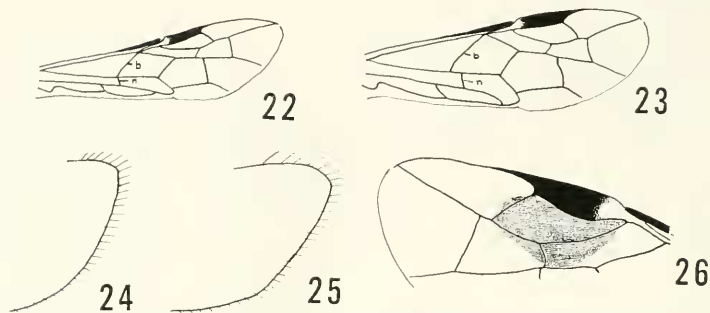
Food plant.—*Rhododendron reticulatum* D. Don (Ericaceae).

Holotype.—Female, emerged on 17.IX.1999 from larva feeding on leaves of *Rhododendron reticulatum*, Kamigamo, Kyoto

City, Kyoto Prefecture, S. Sugiura leg. Deposited in the National Science Museum (Natural History), Tokyo.

Paratypes.—Same data as holotype, except emerged 18.IX.1999 (1 ♀, 1 ♂), emerged 29.X.1999 (2 ♀). Deposited in the collection of the National Science Museum (Natural History), Tokyo (2 ♀, 1 ♂) and the National Museum of Natural History, Smithsonian Institution, Washington, DC (1 ♀).

Remarks.—This new species is separated from most Japanese species of *Allantus* by the nervulus not intersitial with the basalis in the forewing (Fig. 23), the mostly yellow head, and the abdominal tergites with inverted T-shaped white maculae. It appears most similar to *A. nakabusensis* and *A. viennensis*. The female is distinguished from *A. nakabusensis* by the black mesoscutellar appendage (yellow in *A. nakabusensis*), by the mostly black metascutellum (entirely yellow in *A. nakabusensis*, see Figs. 5, 7), by the yellow mesopleuron (black with the mesepimeron yellow in *A. nakabusensis*), by the shape of the sawsheath (see Figs. 10–11), and the structure of the lancet (see Figs. 12–17). The male of *A. rhododendri* is separated from that of *A. nakabusensis* by the coloration of the occiput and by the structure of the harpes, parapenis, and penis valve (see Figs. 18–21).



Figs. 22-26. 22-23, Forewing (b = basalis; n = nervulus). 22, *Allantus luctifer*. 23, *A. meridionalis*. 24-25, Female sawsheath. 24, *A. albicinctus*. 25, *A. meridionalis*. 26, Apical portion of forewing showing infusate spot below stigma in *A. calliblepharus*.

From the female of *A. viennensis*, *A. rhododendri* is distinguished by the trapezoidal serrulae of the lancet (triangular in *A. viennensis*, see Smith 1979, fig. 225 and Fig. 13) and by the inverted T-shaped yellow macula on the 8th tergite (posterior margin of 8th tergite yellow in *A. viennensis*). The male of *A. rhododendri* is distinguished by the shape of the genitalia (see Smith 1979, figs. 231-232 and Figs. 18, 20).

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#### LITERATURE CITED

- Abe, M. and I. Togashi. 1989. Tenthredinidae, pp. 545-558. In Hirashima, Y., ed. A Check List of Japanese Insects. (In Japanese.)
- Benson, R. B. 1952. Hymenoptera (Symphyta). Family Tenthredinidae. In Royal Entomological Society of London, Handbook for the Identification of British Insects, v. 6, pt. 2(b), pp. 51-137.
- Okutani, T. 1967. Food plants of Japanese Symphyta (2). Japanese Journal of Applied Entomology and Zoology 11: 90-99. (In Japanese.)
- Smith, D. R. 1979. Nearctic sawflies IV: Allantinae: adults and larvae (Hymenoptera: Tenthredinidae). United States Department of Agriculture Technical Bulletin 1595, 172 pp.
- Taege, A. 1986. Beiträge zur taxonomie und verbreitung palaarktischer Allantinae (Hymenoptera, Symphyta). Beiträge zur Entomologie 36: 107-118.